

CLAIMS

What is claimed is:

10

*Sub A1*  
A method of interfacing with a three-dimensional object that is displayed, said method comprising the steps of:

15

defining said three-dimensional object as a component with a component interface, said component intrinsically containing an intelligent content; displaying said component interface; and interfacing with said three-dimensional object through said component interface.

2.

The method of claim 1, wherein said defining step further comprises the steps of:  
defining said component in a three-dimensional content language;  
defining an at least one property to describe said component; and defining an at least one route to interface said component with a second component, so that said at least one property and said at least one route comprise a portion of said intelligent content.

- 5        3. The method of claim 2, wherein said three-dimensional content language  
is a virtual reality modeling language.
- 10       4. The method of claim 2, wherein said at least one property is selected from  
the group consisting of color, shape, transformation, behavioral, event  
handling and grouping.
- 15       5. The method of claim 2, wherein said at least one route is selected from the  
group consisting of event and action as an event model for the component.
- 20       6. The method of claim 1, wherein said component interface is selected from  
the group consisting of group, pickable, transformable, colorable and  
texture.
7. The method of claim 1, wherein said component interface is selected from  
the group consisting of a smartproperty list, a smartproperty, a  
smartwidget, a smartfactory, a property, a propertylist, an extension and  
an extensionfactory.
- sub A2*  
8. The method of claim 1, wherein said displaying step further comprises the

5

step of displaying said component interface on a cathode ray tube display.

9.

The method of claim 1, wherein said interfacing step further comprises the steps of:

providing a plurality of component interfaces;

10

selecting one of said plurality of component interfaces to access said intelligent content; and

interfacing with said three-dimensional object through said selecting one of said plurality of component interfaces.

15

An apparatus for interfacing with a three-dimensional object that is displayed, comprising:

means for defining said three-dimensional object as a component with a component interface, said component intrinsically containing an intelligent content;

20

means for displaying said component interface; and

means for interfacing with said three-dimensional object through said component interface.

*Sub A3*

11. The apparatus of claim 10, wherein said defining means further comprises

5

a computer readable medium having a computer program stored therein.

12. The apparatus of claim 10, wherein said displaying means further comprises a cathode ray tube display.

10

13. The apparatus of claim 11, wherein said computer program is written in a virtual reality modeling language.

14. A computer system for interfacing with a three-dimensional object that is displayed, comprising:

15

a means for displaying said three-dimensional object;  
a memory for storing a computer program for interfacing with a three-dimensional object displayed on said displaying means, said computer program executed to perform the steps of:  
defining said three-dimensional object as a component with a

20

component interface, said component intrinsically containing an intelligent content;

displaying said component interface on said displaying means;

and

interfacing with said three-dimensional object through said

sub A4

5

component interface; and

~~a processor for executing said computer program in conjunction with said monitor.~~

10

15. The computer system of claim 14, wherein said defining step further comprises the steps of:

~~defining said component in a three-dimensional content language;~~  
~~defining an at least one property to describe said component; and~~  
~~defining an at least one route to interface said component with a second component, so that said at least one property and said at least one route comprise a portion of said intelligent content.~~

15

16. The computer system of claim 15, wherein said three-dimensional content language is a virtual reality modeling language.

20

17. The computer system of claim 14, wherein said component interface is selected from the group consisting of group, pickable, transformable, colorable and texture.

18. The computer system of claim 14, wherein said component interface is

5

selected from the group consisting of a smartproperty list, a smartproperty, a smartwidget, a smartfactory, a property, a propertylist, an extension and an extensionfactory.

*Sub A5*

10

19. The computer system of claim 14, wherein said interfacing step further comprises the steps of:  
providing a plurality of component interfaces; and  
selecting one of said plurality of component interfaces to access said intelligent content.

15

20. A computer readable medium having a computer program stored thereon that, when loaded into a computer, cause said computer to perform a function of interfacing with a three-dimensional object displayed on said computer, said computer interfacing with said three-dimensional object by performing the steps of:

20

defining said three-dimensional object as a component with a component interface, said component intrinsically containing an intelligent content;

displaying said component interface; and

interfacing with said three-dimensional object through said component

5

interface.

10

21. The computer readable medium of claim 20, wherein said defining step  
further comprises the steps of:

defining said component in a three-dimensional content language;

defining an at least one property to describe said component; and

defining an at least one route to interface said component with a second  
component, so that said at least one property and said at least one  
route comprise a portion of said intelligent content.

20

15. 22. The computer readable medium of claim 21, wherein said three-  
dimensional content language is a virtual reality modeling language.

23. The computer readable medium of claim 20, wherein said component  
interface is selected from the group consisting of group, pickable,  
transformable, colorable and texture.

24. The computer readable medium of claim 20, wherein said component  
interface is selected from the group consisting of a smartproperty list, a  
smartproperty, a smartwidget, a smartfactory, a property, a propertylist,

5

an extension and an extensionfactory.

*Sub A16*

25. The computer readable medium of claim 20, wherein said interfacing step  
further comprises the steps of:

10

providing a plurality of component interfaces; and  
selecting one of said plurality of component interfaces to access said  
intelligent content.

*ADD A17*

*ADD C1*